

**Table 3-7d**  
**Development of Risk-Based Concentrations for Upland Soil**  
**Gray Fox**  
**Investigation Area H1 Feasibility Study**  
**Mare Island, Vallejo, California**

$$RBC_{soil} = BW \times TRV \times HQ / [(IR_{prey} \times BAF) + IR_{soil}] \times SUF]$$

COEC <sup>a</sup>	Rodent Tissue BAF <sup>b</sup>	TRV (mg/kg BW-day)		RBC-Soil (mg/kg)	
		Low	High	TRV-Low	TRV-High
<b>Inorganics</b>					
Antimony	1.22E+00	0.06	23.4	4.2	1646
Arsenic	--	0.32	4.70	1002	14718
Cadmium	--	0.06	2.64	188	8267
Chromium	2.60E-02	2.40	23.10	3894	37480
Cobalt	--	1.2	20	3758	62631
Copper	3.45E-01	2.67	632	627	148317
Lead	6.10E-01	1.00	241	137	33098
Manganese	--	13.70	159	42902	497918
Mercury	--	0.25	4	783	12526
Molybdenum	--	0.26	2.6	814	8142
Nickel	--	0.133	31.6	416	98957
Selenium	6.12E+00	0.05	1.21	0.71	17.3
Silver	--	0.375	3.75	1174	11743
Thallium	1.01E+00	0.48	1.43	41	121
Vanadium	--	0.21	2.10	658	6576
Zinc	1.11E+00	9.60	411	741	31731
<b>Organics</b>					
PCBs	1.81E+01	0.36	1.28	1.7	6.2
DDDs	1.04E+00	0.8	16	65.4	1309
Benzo(a)anthracene	--	NTV	NTV	--	--
Benzo(a)pyrene	--	1.31	32.8	4102	102715
Benzo(b)fluoranthene	--	NTV	NTV	--	--
Benzo(k)fluoranthene	--	NTV	NTV	--	--

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**Exposure Assumptions and Equation:<sup>c</sup>**

	Value	Units	
IRprey(dry wt.) =	0.17700	kg/day (dry weight)	-- = Not available
IRrodent (dry wt.) <sup>d</sup> =	0.17700	kg/day (dry weight)	NTV = No toxicity value
IRsoil (dry wt.) <sup>e</sup> =	0.0049560	kg-day (dry weight)	
Tissue Moisture (mouse) <sup>d</sup> =	68%	percent	
Site Use Factor <sup>f</sup> =	25%	percent	
Body Weight =	3.88	kg	
Hazard Quotient (HQ)	1	unitless	

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**Notes:**

- a - Constituent of ecological concern.
- b - Dry weight basis mouse BAFs presented in Table 3-6a.
- c - Exposure parameters used to calculate risk are discussed in detail in the BERA.
- d - The wet weight tissue concentrations are converted to dry weight by dividing by 1 - tissue moisture.
- e - Ingestion rate of sediment based on 2.8 percent of the prey ingestion rate (dry weight); based on a red fox (Beyer et al., 1994)
- f - Site use factor was based on a 25% use of the site for the fox's foraging range.